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ABSTRACT

The argument is made that without proper staffing and support (a condition that occurs as financial pressures on higher education institutions increase) institutional research will not be able to prepare analyses of enough depth and sophistication to constitute a meaningful contribution to policy-making. An outline is provided as to how to increase productivity, staffing, and resources. The outline contains ideas and recommendations concerning the use of personal time management techniques, the use of microcomputers by personnel, development of an annual research plan, acquiring an office management system, use of an institutional factbook, the creation of networked decision support systems, and collaboration with external organizations. Suggestions are made on gaining more research staff: using consultants and faculty research associates, obtaining grant-funded positions, making the researcher's office more valuable and visible, and requesting new positions at appropriate opportunities. Contains seven references. (GLR)

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INCREASING INSTITUTIONAL RESEARCH PRODUCTIVITY, RESOURCES, AND STAFFING

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for Management Research, Policy Analysis, and Planning

This paper was presented at the Thirtieth Annual Forum of the Association for Institutional Research held at The Galt House, Louisville, Kentucky, May 13-16, 1990. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum Papers.

Jean Endo
Chair and Editor
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Institutional research will not "come of age" and fulfill its potential for significant contributions to decisionmaking until it is adequately staffed and supported. This paper suggests ways to increase productivity, staffing, and resources. Increase productivity through personal time management techniques, a microcomputer on every desk, an annual research plan, an office project management system, an institutional factbook, networked decision support systems, and collaboration with external organizations. Gain more research staff by using consultants and faculty research associates, replacing your secretary, obtaining grant-funded positions, making your office more valuable and visible, and requesting new positions at appropriate opportunities.

The year was 1979. The members of the Maryland Community College Research Group were so moved by a pressing institutional research issue that they published a widely circulated position paper. Its title? The Strangulation of Institutional Researchers: Increased Regulation and Reporting. The increasing demands of required external reporting threatened to preclude institutional research support of college decisionmaking. One college estimated that over 16,000 staff hours were required annually to complete forms for external agencies, an amount equal to eight full-time employees working all year on just those reports. The paper argued that the very role of institutional research was being subverted or redefined in adverse ways. How did the authors of the research group paper cope with the "strangulation" of institutional research? While one of the three is still surviving in institutional research, the other two escaped to become college presidents!

Eleven years after the strangulation paper, IPEDS has replaced HEGIS, states are mandating accountability reports, and neither external nor internal demands for information have slackened. An additional irony increases the institutional research workload, captured by the cartoon line "I'm so pleased with the way you handled that lousy, thankless job I gave you, Craig, that I'm going to give you another one." Francois de la Rochefoucauld put it another way: "Gratitude is merely the secret hope of further favors." In any case, the reward for good work is usually more work.

How can institutional research cope with an increasing workload? Three choices exist: work more hours, increase productivity, or increase staff and resources. Assuming the first option is least preferred, this essay will present techniques to improve office productivity and strategies to increase staff and resources. The suggestions are based on 11 years experience in institutional research at a large suburban community college, plus numerous conversations with beleaguered colleagues barely surviving in one-person shops. Since I have managed to escape that condition and build an effective five-person research team, I want to share the strategies and tactics that produced that happy result. Many of the productivity suggestions will seem obvious to those who have survived in institutional research for any length of time; I include them as an aid to newcomers to the field. I suspect the latter part, dealing with how to add staff to the institutional research office, will be of most interest. And I would argue that most offices need additional staff, even those that don't realize it. For example, I would argue that less than a third of the colleges in my state are adequately staffed to make the kind of contributions institutional research is capable of. We didn't reach this point at my college until this past year, when I was able to add a fifth member to the institutional research staff. I now have the "luxury" of assigning long-term projects to an analyst who is able to thoroughly investigate policy issues without having to constantly juggle multiple competing tasks.

Coming of Age?

The theme of this year's Forum is "Institutional Research--Coming of Age." I would argue "coming of age" means having sufficient staff and resources to be able to prepare analyses of enough depth and sophistication to constitute a meaningful contribution to policy-making. These will often be conceptually challenging, multivariate studies that may require months of effort. Offices limited to simple data reporting and descriptive analysis due to inadequate staffing are not fulfilling the potential of institutional research and have not come of age!

Increasing Office Productivity and Effectiveness

Before you can legitimately and persuasively argue the case for more staffing, you must demonstrate that you are effectively using the resources at hand. In this section, I will outline several suggestions for improving institutional research productivity and effectiveness.

Personal Time Management Techniques

Someone once said time is nature's way of keeping everything from happening at once, but in institutional research you sometimes wonder. The one-person institutional research office faces the same problem as any busy professional: making the most effective use of his or her limited time. Personal time management techniques can provide some guidance. The four steps of triage, delegation, setting limits, and prioritizing can be summarized in question format as follows:

1. **What will happen if I don't do this at all?** A

respected research office will get more requests than it can possibly handle and so will by necessity have to turn some down. Accept those that will serve the needs of your governing board and president's staff, or please those in a position to help you. Be reluctant to accept others, regardless how meritorious the idea or friendly the source. Generally avoid projects serving narrow interests--do you really have the time to help yet another faculty member get their dissertation done? Practice project **triage** so you can devote adequate time to the really important ones.

2. **Is there someone else who can do this well enough?** It is important to maintain quality control and ensure accurate data support to top management, but one person cannot do it all. If a project is worth doing but your personal time is committed to other, higher priority projects, **delegate** the work to someone who can do an acceptable job. This is often difficult; you have built your professional reputation and office credibility on your own efforts and delegation may mean a job done differently than you would have done it. But if you maintain sufficient oversight of the institutional research "temporary" you can get the work done in a satisfactory if not optimal manner.

3. **How much time is this task worth?** Analytical pathways can be unending, as each new insight can lead

to several other areas to explore. Bringing really interesting research projects to closure requires discipline; however, the pressure of other tasks makes the effort easier. It is helpful to **set limits** at the outset and stick to a timetable for project completion; a project management system can help.

4. **Is this the best use of my time now?** Once you know what projects you should personally work on, and have established limits by defining the project parameters, you still need to decide what task should demand your attention now. **Prioritize** your tasks according to deadline and importance. Don't procrastinate on the important projects by doing the easy ones first; if you do, you'll end up doing the really visible and important work in a rush--not an effective approach.

A Microcomputer on Every Desk

The greatest boon to office productivity in recent memory, the microcomputer has applications in almost every institutional research task. Indispensable are spreadsheet, statistical analysis, and word processing software, with database management, graphics, and mapping packages very useful. More and more offices are adding desktop publishing to enhance the appearance of questionnaires and office publications. Laser printers are now the standard, with plotters for preparing color overheads and presentation software for automated shows and slide preparation becoming more popular. Machines are commonly connected to the

mainframe and increasingly linked in networks. Micros are ubiquitous due to their tremendous, diverse utility; the major point I want to emphasize here is that every staff member should have his or her own machine. "A micro on every desk" is an investment in office productivity matched by few others.

Annual Research Plan

Preparation of an annual research plan (ARP) at the beginning of each fiscal year serves several useful purposes. Planned activities can be posted under three headings: required external reporting, routine institutional reporting, and priority research projects. I use a matrix, with these three headings as columns (plus a fourth column for estimated staff hours needed) and calendar months as the rows. Using federal and state reporting guidelines, post required external reports by due date on the ARP calendar. Next, post all anticipated, recurring institutional reports by month in the second column. Post the estimated work hours, classified as director/analyst/technician level, in the fourth column for all external and routine internal reports entered. The calendar will now suggest what months have time available for priority research projects, and approximately how much staff time is available. Use this information in discussions with your president and deans; by showing that the time available for substantial research efforts is limited, you can make the selection of priority projects a visible choice--highlighting the fact that perhaps many meritorious projects cannot be done given current resources. You also gain consensus

that the projects you do accept are those of greatest importance to the institution. Post the agreed-upon priority projects by month in the third column to complete your annual research plan.

In addition to using the ARP as a negotiating and educational tool with top management, you can elaborate upon it for office planning purposes. Office goals and objectives for the year can be developed concurrently, and all posted reports and projects can be entered into an office project management system for monitoring productivity throughout the year.

Office Project Management Systems

Keeping track of the multitude of projects underway concurrently in most institutional research shops is greatly facilitated by implementation of an office project management system. A busy shop may complete over 100 projects annually, most with established due dates and many containing multiple stages. Even a one-person shop can benefit from a computerized system for monitoring project progress, while such a system is especially valuable to larger offices. You do not, however, need specific project management software. Such software is intended and most appropriate for large, long-term projects with many interrelated subunits, where time and cost monitoring are essential. The need in the typical institutional research office is different. Rather than detailed tracking of one or a few individual projects, the need is for monitoring the status of dozens of projects with near-term due dates. It is easy to set up an effective project management system on the office's

microcomputer database software. Data elements might include project number, requesting office, date of request, date needed, project name, project leader, priority, status, date begun, and date completed. Reports generated from the system might include project status report by due date, monthly report, project leader status reports, and project lists by number and alphabetically by name. Others can be created as needed.

Institutional Factbook

I initially resisted compiling the traditional institutional factbook. The college had gotten along for 27 years without one, and it clearly would be a time-consuming task to compile and produce one from scratch. But I had to find some way to reduce the numerous requests for data that frequently interrupted my daily work, and the college needed a common reference so people would be using the same numbers in policy discussions on campus. I explored the idea of issuing the factbook on microcomputer diskette, providing a few offices an abbreviated version as a pilot test. Though a promising concept, in execution it failed. Most administrators were not heavy micro users, and I found them calling the research office rather than booting up and searching for the needed file. And until we all routinely carry our laptops to meetings, the diskette version suffered in portability compared to the traditional printed version. Reluctantly, I decided to go the traditional route. I am now on my third revision. My printed factbook, numbering nearly 150 pages in length, has proven to be a valuable investment. Grant proposals,

committee discussions, budget briefings, external reports, college publications, and other places where data are used now report accurate and consistent numbers without contacting the research office. (For a useful discussion of factbook design considerations--audience, timing, type and level of data, and means of presentation--given the purposes of historical record, public relations, and decision support, see Nichols, et al., 1987.)

Networks and Decision Support Systems

If the administrative staff can be networked, a statistical database can be established complete with a query-language interface so that decisionmakers can access basic data themselves, further reducing the routine data requests made to institutional research. Matross (1987), in an excellent Professional File essay on the markets and delivery systems pertinent to "new-style" information centers, argues for **targeted reporting systems** that not only feature data accessibility and easy-to-use software but also "protect users from making unknowing definitional and analytical mistakes" (p. 5). In the case of decision support systems, one way to do this is to provide a "summary statistics database" of official data, either on-line or on disk, for use by administrators. Rather than having direct access to the original databases of individual cases, the decisionmakers access a much smaller set of official data reflecting the adjustments made for federal and state reporting; that way, their inquiries will not produce figures at

odds with those externally reported. In addition, "on-demand" preprogrammed reports, accessible by menu choices, can be constructed to answer standard, recurring administrative questions. These serve the needs of occasional users who may not use the system enough to become adept at creating reports on their own, and who almost certainly will not have a full understanding of the reliability and definitional complexities inherent in the use of selected data elements.

Exploit External Resources through Collaborative Projects

Collaborative projects conducted with state agencies and professional organizations can bring large returns on small investments. Community colleges in Maryland benefit from numerous data exchanges and analytical projects coordinated by the State Board for Community Colleges (SBCC), in conjunction with the Maryland Community College Research Group (MCCRG). State Board staff provide peer college comparative data, as well as statewide averages, based on enrollment, graduation, discipline cost, and employee data submissions from each of the 17 colleges. A computerized program data monitoring system maintained by SBCC facilitates academic program evaluation. Surveys designed by MCCRG are processed at SBCC, saving the individual colleges data entry and initial analysis costs. Collaborative projects can sometimes garner outside funding support, expanding the cost savings. A vocational education grant supported the analysis and final report preparation for a statewide study of continuing education outcomes.

Increasing Institutional Research Staffing and Resources

At last year's Forum, Jim Dator stated that institutional researchers occupy "a very precious space between spineless administrators and mindless academicians." Assuming a continuum, I guess this means we are some combination of spineless and mindless. However, those of you with guts and brains should not hesitate to consciously scheme to increase your office staff and resources. In this section I will outline several approaches to achieving that happy result. Some are safe and commonplace, others contain considerable risk but greater rewards.

Budget for Consultant Services

If adding personnel is not on the immediate horizon, attempt to obtain budget dollars for consultant services. Even small amounts are worth pursuing; $500 could get a survey analysis completed and written up. Once the budget line is established, use it for high visibility projects and try to increase it yearly: the larger it grows, the less the financial jump to funding a staff position!

Faculty Research Associates

One way to increase your office's analytical capability is to utilize college faculty on released time. Faculty in the natural and social sciences, mathematics, business, and other departments may have the skills and the inclination to apply them to institutional research needs. I have used these "faculty research associates" to complete projects on an intermittent basis, as projects arose that did not make the priority list but

attracted faculty interest. The cost is reasonable, usually the salaries of part-time adjunct faculty to cover the research associate's course load. Depending on the project, the faculty member may be released from teaching for an entire semester, or just one or two courses. A caveat, however: the institutional research director should attempt to influence (if not have final approval over) both the specifications of the project and the appointment of the faculty research associate. Our initial effort was an outgrowth of an existing faculty professional development leave program, in which a humanities professor proposed a survey of high-ability high school students to aid in development of a campus honors program. The project was approved with minimal input from the institutional research office. The problem was the faculty member in question knew nothing about survey research or data analysis! So institutional research did the work, the faculty member had the semester off, and it was clear some guidelines had to be developed--but the important precedent of utilizing faculty in the institutional research office was established. Arrangements were subsequently agreed upon with the dean of instruction, so the research director is now consulted in any faculty institutional research project decisions. The process has worked well in the two most recent cases; a biology professor completed a faculty professional development survey, and a speech communications professor conducted focus group research on the needs of adult students.

Replace Your Secretary!

Microcomputing has eliminated much of the traditional function of the office secretary. No longer needed to type and proof statistical tables and draft after draft of research reports, since these are now done by the originating analyst using spreadsheet, database, and word processing software, the traditional role is largely obsolescent. Consider changing the job description for this position. I transferred my secretary, who had limited mathematical and computer aptitude, to our expanding development office who needed her clerical skills for grant preparation, in exchange for a new research technician position. While this position continues main office phone coverage, and monitors the office budget and payroll function, major responsibilities involve data entry and tabulation, administration of surveys, preparation of graphics, and elementary statistical analysis. It may be possible to train an existing secretary to do these tasks, but I recommend, if circumstances permit, a new research technician position that enables you to recruit based on research and statistical skills.

Pursue Grant-funded Staff Positions

Substantial staff help can be obtained through grant-funded research positions. For example, colleges that qualify for Title III institutional strengthening grants may be able to develop activities with substantial research components justifying funding of new positions. Depending on the activity, even full-time research positions may be funded for periods as long as

three to five years. At my college, we have had two Title III activities that funded research support. The first developed a system for monitoring the college's growing set of occupational programs in the early 1980s. The lasting impact of the activity, five years later, is continued use of several grant-developed performance indicators, such as inferred program cost, and continued faculty involvement in formal program evaluation. While active, the activity completed several program evaluation tasks that the research office could not have attempted due to workload demands. A final legacy: the grant-funded management systems analyst is now on the operating budget as the college's supervisor of institutional research. The second Title III grant, in the later 1980s, funded an activity partially used as a vehicle for decentralizing instructional decisionmaking, by increasing the responsibilities of associate deans. To support this intention, several divisional decision support systems were established, under the guidance of a grant-funded research and planning analyst working in the institutional research office. During the three-year grant, enrollment and staffing analyses at the academic division level were routed to the grant activity to assist in the development of the decision support systems.

Seek Out New Opportunities to Contribute

The strategy for increasing staff with the greatest risk is to seek out new opportunities to contribute research and analytical support to top management. Advocating the pursuit of more work as a solution to work overload sounds irrational, but

there is a certain logic to it. The idea is to break out some time to provide something new and valuable to people in a position to help you get more staff. Show them how institutional research support can be of value to their immediate concerns, and how this support could be ongoing if institutional research had the necessary staff. Ideally, the new contribution will be highly visible as well as valuable. You will need to be proactive and attuned to what looms on the administrative horizon to identify these opportunities. Three examples come to mind. In the early 1980s, I noticed that our collegewide planning was not based on any formal acknowledgement of changes in our service area. No systematic examination of external demographic, economic, or social trends or forecasts appeared in our planning documents. I explored the literature on the corporate technique of environmental scanning (see Clagett, 1989a), and prepared a formal "ENSCAN" report for the president's staff. The president had me share the ENSCAN findings with the college's board of trustees, the faculty, and the classified staff. Environmental scanning is now an integral part of the college's annual planning process, and a permanent new role for institutional research in planning was established. This new role is manageable (Clagett, 1989b), elevated the visibility and importance of institutional research at the institution, and partly justified a later addition to the research staff.

The second example is student outcomes assessment. Higher education accountability was first identified as an issue in

Maryland by legislative auditors in 1980, but nothing was decided until 1988, when accountability requirements were included in a higher education reorganization law. Anticipating this, I prepared a Student Outcomes Performance Accountability Report, 84 pages summarizing the findings of existing student outcomes assessment at my college (Clagett, 1988). Issued before the higher education commission had determined the format of the mandated accountability reports, the report was widely discussed statewide, led to the research director's appointment to the higher education commission's accountability committee, and made the research office the focus of accountability efforts at the college. This expanded responsibility, together with the enlarged role in planning, was sufficient justification for the approval of a new full-time analyst position.

The third example of seeking new opportunities to contribute is just underway. To assist in college marketing and enrollment management, the office is embarking on an application of lifestyle cluster analysis to learn more about the residents of its service area. Based on factor analyzing a 270-variable file of census tract data, a number of neighborhood types or lifestyle clusters will be identified. We anticipate this detailed description of the college's service area will assist in general marketing and program development, with subsequent geo-coding of student record data permitting a new form of enrollment analysis. Lastly, promotional materials can be designed for specific clusters that, together with targeted mailings, promises to be a

cost-effective marketing approach.

These three initiatives did indeed increase the institutional research workload. They also increased office visibility, importance, resources, and staffing. Three different deans were provided valuable new services: the dean of administration (environmental scanning for budget planning), the dean of instruction (student learning outcomes for accountability), and the dean of advancement (cluster analysis for recruitment and marketing). Three strong allies for continued institutional research support, which may prove critical if retrenchment actions should threaten future office budgets or staffing profiles.

Promote Office Visibility

In a phrase: be valuable and visible. Learn and apply the principles of presenting and interpreting data to management (Clagett, 1990). Welcome opportunities to share research findings with campus constituencies in oral presentations. Consider publishing a brief but widely circulated office newsletter. Take the time to document institutional research contributions in your college's Annual Report. In your own monthly reports, include a sentence or two summarizing the major insights of research studies, rather than just listing them. In short, remind people how valuable the institutional research function is by making your contributions visible.

Request and Justify at Appropriate Opportunities

Annual budget requests should include staffing requests

backed up by a detailed justification statement. Explain how existing resources are being used productively, and describe specific projects--beyond current office capabilities--that could be accomplished with the added staff member. If you have a temporary position producing valuable output, make the case for funding the position on the operating budget to ensure continuation of its contribution. If you cannot write a persuasive justification, you shouldn't be seeking the position!

The timing and frequency of staffing requests need to be carefully considered. Every new request for service should not be responded to with an inadequate staffing refrain. Keep a record of unmet requests of obvious merit (use your project management system); this can be a source for your annual justification statement. Do not be discouraged if your position is turned down but be persistent in its advocacy. Build an alliance of project seekers who will support your request at the opportune time.

Summary

While some believe that financial pressures on higher education institutions will restrict the expansion of support functions such as institutional research, it can be argued that such pressures may make effective institutional research more valuable. This essay has attempted to outline ways in which institutional research can gain sufficient productivity and resources to fulfill its potential for significant contributions to institutional decisionmaking.

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